CYP2C19*2(GA) carries is a statistically non significant with basal aggregation, before PCI, day after PCI, and after PCI, while significant with inhibition percentage before PCI. **CONCLUSIONS:** There was a variable individual response to Clopidogrel between patients carries CYP2C19*1.CYP2C19*2 (GA) genotype and carries CYP2C19*1.CYP2C19*1 (GG) genotype.

PCV19

## VENOUS THROMBOEMBOLISM PROPHYLAXIS AND CLINICAL CONSEQUENCES IN HOSPITALIZED MEDICALLY ILL PATIENTS

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**OBJECTIVES:** This study examined VTE prophylaxis and VTE risk reduction and readmission in a cohort of hospitalized medically ill patients in the real-world clinical setting during hospitalization and post discharge. **METHODS:** This 5-year retrospective study used linked outpatient files from MarketScan® Commercial and Medicare Supplemental databases, thereby providing continuity of therapy through hospitalization and post-discharge. Patients were categorized into prophylaxis and non-prophylaxis groups based on use of any guideline-recommended anticoagulants from the index date to 180 days after index hospital discharge, and before the date of the first VTE event. Outcome variables were VTE events and re-hospitalization. Risk adjustment was conducted within the prophylaxis group, and between the prophylaxis and non-prophylaxis groups using propensity score matching. **RESULTS:** Among 3916 patients identified, 29.37% (n=1295) were admitted with cancer, 18.25% (n=805) with pneumonia, 14.24% (n=628) with heart failure, 11.25% (n=496) with sepsis, 8.19% (n=361) with infectious diseases, 5.67% (n=250) with severe respiratory disorders, and 1.84% (n=81) with inflammatory bowel disease (IBD). Among these patients, only 1819 (51.81%) received anticoagulant therapy and 242 (6.18%) received non-pharmacological prophylaxis only during their hospitalization and until 180 days after discharge. The anticoagulant therapy rates ranged from 88.64% in obesity to 32.39% in IBD patients. Among patients who received anticoagulant therapy, 740 (40.68%) received low molecular weight heparin only and 806 (44.31%) received unfractionated heparin. After risk adjustment, compared to patients without VTE prophylaxis, those patients who received anticoagulant prophylaxis had lower VTE rates (3.62% vs. 4.27%., $p<0.04$) and lower readmission rates (24.22% vs 27.95%, $p<0.02$) during the 6-month period from the index hospital admission. **CONCLUSIONS:** Despite existing guidelines, anticoagulant prophylaxis is underutilized in medically ill patients in clinical practice. Anticoagulant prophylaxis is associated with reduced risk of VTE and rehospitalization in medically ill patients.

PCV20

## THE ASSOCIATION OF ANTIHYPERTENSIVE MEDICATION ADHERENCE WITH COMPLICATION AND ALL-CAUSE MEDICAL COST IN SOUTH KOREA: A RETROSPECTIVE NATIONAL CLAIMS ANALYSIS

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**OBJECTIVES:** The association of antihypertensive medication adherence with occurrence of complications and all-cause medical costs was examined using data from the Health Insurance Review and Assessment Service(HIRA). **METHODS:** This study was a retrospective analysis of HIRA administrative claims data from January 2005 to December 2009. All subjects initiating therapy with oral antihypertensive drugs were identified in January through December 2006. The index date was the date of the first hypertension-related prescription. Patients were observed for 1 year before and 3 years after therapy initiation. Outcomes included occurrence of complications and all-cause medical costs; occurrence of complications was measured starting 2 years after therapy initiation through follow-up and all-cause medical costs were measured all durations of follow-up. Adherence was measured with a medication possession ratio (MPR) and categorized <19%, 20-39%, 40-59%, 60-79%, and ≥80%. Using Cox survival regression, Occurrence of complications was modeled at levels of MPR. All-cause medical costs were modeled with generalized linear model regression. **RESULTS:** Average MPR in the total of 290,602 hypertension patients was 82.8%(±21.2). In Cox survival analysis, risk of complications increased as levels of MPR decreased. Patients with the lowest MPR level versus optimal adherence had 3 times higher risk of complications (hazard ratio=3.00, 95% CI=2.69-3.35). Under the adjustment with covariates, annual all-cause medical costs per patient were 23% higher for patients with the lowest MPR level versus optimal level (exponential coefficient=1.23, 95% CI=1.20-1.25). The costs, however, were 2-7% lower for groups with MPR 20-39%, 40-59% and 60-79%, because pharmacy costs offset in/out-patient care cost saving. **CONCLUSIONS:** This study showed strong associations between decreased antihypertensive medication adherence and increased risk of complication occurrence. And the lowest adherence was associated with higher all-cause medical costs. Further research is needed in longer than 3 year follow-ups to assess the economic impact of adherence.

PCV21

## PATIENT CHARACTERISTICS AND DOSAGE PATTERNS OF STATIN USERS IN JAPAN: A HEALTH CARE DATABASE ANALYSIS

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**OBJECTIVES:** To compare baseline characteristics and dosage patterns among Japanese patients newly started on statin. **METHODS:** Patients ≥18 years were identified between June 2006 to August 2010, with a minimum 6-month pre- and 12-month post-index health plan eligibility from the Japan Medical Data Center Database. A 90-day statin-free washout period was applied to identify patients in whom statin therapy was newly prescribed. The index date was defined as the date of the first statin prescription. Five cohorts were created based on index statins [atorvastatin (ATS), simvastatin (SIS), rosuvastatin (ROS), pitavastatin (PTA), and pravastatin (PRS)] comparing demographics, comorbidities, statin dosage patterns, prior medication, health care costs and resource utilization. **RESULTS:** There were 14,675 patients identified across 5 cohorts: 27.7% ATS, 6.4% SIS, 26.9% ROS, 12.9% PTA and 26.0% PRS. PTA cohort had more diabetes (PTA 14.0% vs. ATS 10.2%, SIS 6.5%, ROS 12.8%, PRS 9.6%) and coronary artery diseases (PTA 8.6% vs. ATS 7.7%, SIS 4.1%, ROS 7.4%, PRS 7.3%). ROS cohort had more prior peripheral vascular disease (ROS 6.6% vs. ATS 5.6%, SIS 3.6%, PTA 5.6%, PRS 5.5%), cerebrovascular disease (ROS 7.0% vs. ATS 6.6%, SIS 2.9%, PTA 5.7%, PRS 6.3%), and hypertension (ROS 33.2% vs. ATS 30.2%, SIS 27.4%, PTA 30.9%, PRS 30.2%). SIS cohort had more prior outpatients visits (SIS 9.6 vs. ATS 8.2, ROS 8.7, PTA 8.2, PRS 9.3). Prior healthcare costs were similar across 5 cohorts. Majority of patients were prescribed lower statin doses: ATS, 10mg (60%); SIS, 5mg (86%); ROS, 2.5mg (89%); PTA, 1mg (49%); PRS, 10mg (62%). **CONCLUSIONS:** Japanese patients newly started on a statin had similar prior health care costs, and were prescribed lower doses compared to Western countries. Patients with diabetes and coronary artery diseases were more likely to be prescribed PTA.

PCV22

## TREATMENT PATTERNS AND OUTCOMES IN PATIENTS WITH PULMONARY ARTERIAL HYPERTENSION AND CHRONIC THROMBOEMBOLIC PULMONARY HYPERTENSION: RESULTS OF A RETROSPECTIVE CHART REVIEW IN SIX EUROPEAN COUNTRIES

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**OBJECTIVES:** To describe demographics, treatment patterns and outcomes of patients with pulmonary arterial hypertension (PAH) and chronic thromboembolic pulmonary hypertension (CTEPH) treated under everyday practice. **METHODS:** Retrospective chart review of PAH (N=285) and CTEPH (N=120) patients treated with endothelin receptor antagonists, prostacyclin analogues or PDE-5 inhibitors between July 2003 and June 2009 in specialized centers in 6 countries (France, Germany, Italy, Spain, Sweden, and United Kingdom). Data were extracted from patient files and analyzed descriptively. For survival analysis, Kaplan-Meier estimates were used. **RESULTS:** PAH patients (idiopathic 49.8%, mean age 55.3±15.6 years, 74.4% females, 6-min-walk-distance [6-MWD] 328±121 meters, NYHA class II/III/IV in 20/66/14%) and CTEPH patients (83.7% inoperable and 15.8% persistent after surgery, 67.5±12.1 years, 60.0% females, 6-MWD 298±120 meters, NYHA II/III/IV in 27/58/15%). Mean pulmonary arterial pressure was 50±16 mmHg in PAH and 45±11 mmHg in CTEPH. Mean pulmonary vascular resistance was 939±760 $dyn*s*cm^{-5}$ in PAH and 797±726$dyn*s*cm^{-5}$ in CTEPH. At baseline, 93.7% PAH patients received monotherapy (bosentan 47.0%, sildenafil 35.8%), with concomitant diuretics (40.0%) and anticoagulants (30.2%). CTEPH patients received monotherapy in 99.2% (bosentan 56.7%, sildenafil 34.8%), with concomitant diuretics (59.2%) and anticoagulants (62.5%). Mean observation time was 2.2 years (PAH) and 2.1 years (CTEPH). At end of observation, in the PAH group mean 6-MWD increased by 32±91 meters and by 30±90 in the CTEPH group. In the PAH group, 29.1% of patients improved, 63.8% were unchanged, 7.1% deteriorated in the NYHA class, and 20.4% died (annualized death rate 10.3%); in the CTEPH group 32.2% improved, 59.3% were unchanged, 8.5% deteriorated, and 13.3% died (annualized death rate 6.4%). **CONCLUSIONS:** These data reflect real-life treatment patterns in PAH and CTEPH patients in a period when several new PAH-specific treatments were introduced. Overall, drug utilization was similar in PAH and CTEPH patients (although off-label in the latter group). In view of outcomes there still a great unmet need, especially for patients with CTEPH.

PCV23

## PREVALENCE AND INCIDENCE OF ATRIAL FIBRILLATION: AN ANALYSIS BASED ON 8.3 MILLION PATIENTS

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**OBJECTIVES:** The aims of this contribution are to update and more precisely quantify the age and gender-specific prevalence and incidence of atrial fibrillation (AF) in an European setting (Germany). **METHODS:** To fulfill the aims of the study, it was decided to make a population-based analysis of the claims data collected by a statutory health insurance fund, and concerning its 8.298 million members. A patient was classified as AF prevalent if he/she had received at least two outpatient diagnoses of AF (ICD10-Code I48.1) in two different quarters of the year and/or had received at least one main AF diagnosis during inpatient treatment between January 1, 2007 and December 31, 2008. A patient was considered to have had new onset AF in 2008 under one of three conditions; firstly, he/she had not received a diagnosis of AF in 2007; secondly, had not received oral anticoagulant medication in 2007; and thirdly, had received either one inpatient AF diagnosis in 2008, or two such outpatient diagnosis made in different quarters of that year. AF prevalence is reported in %, AF incidence is reported as cases per 1000 person-years. **RESULTS:** In